

## Data Sheet

### TR FLEX S1 - Deformable mineral adhesive for porcelain stoneware

Tr Flex s1 is a deformable mineral adhesive with a very high content of natural additives for high performance gluing, no vertical slip and long open time of stoneware porcelain, ceramic and natural stones.

#### SUBSTRATES

- Cement screeds and mortars,
- Anhydrite screeds
- Lime and cement plasters
- Concrete, cellular concrete,
- Plasterboard, gypsum and anhydrite
- Radiant systems
- Waterproofing
- Overlay on existing floors,
- Fiber cement sheets,
- External insulation systems,
- Insulating panels.

#### MATERIALS

- Large formats
- Porcelain stoneware
- Ceramic tiles
- Cotto, klinker
- Marble and natural stones
- Mosaics in general

#### USES

- Floors and walls
- Interior - exterior
- Overlap
- Facades
- Terraces and balconies
- Pools and fountains
- Saunas and wellness centers
- Civil
- Commercial, - Industrial
- Street furniture

The combination of substrates, materials and uses indicated may not always be possible to achieve. It is essential that you consult the individual product technical sheets to check their suitability. Anything that is not foreseen in this list must be requested directly from *Technoriunite*.

## PREPARATION OF THE SUBSTRATE

All substrates must be level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising. It is best to apply a primer like Primer A Eco by Kerakoll on very absorbent cement-based substrates.

## ADHESIVE PREPARATION

- Grey  $\approx 7 \ell / 1$  bag
- The amount of water to be added, indicated on the packaging, is an approximate guide.
- It is possible to obtain mixtures with consistency of variable thixotropy according to the application to be made.

## APPLICATION (UNI 11493 - PUNTI 7.9/11)

- To guarantee maximum adhesion it is necessary to apply a layer of adhesive sufficient to cover the entire back of the coating material.
- Large, rectangular sizes with sides  $> 60$  cm and low thickness sheets may require adhesive to be applied directly to the back of the material.
- Check samples to make sure the adhesive has been transferred to the back of the material.
- Create elastic expansion joints:
  - $\approx 10$  m<sub>2</sub> in external applications,
  - $\approx 25$  m<sub>2</sub> in internal applications,
  - every 8 metres in long, narrow applications.
  - Respect all structural, fractionizing and perimeter joints present in the substrates.

**Packe** 25 kg

**Shelf life**  $\approx 12$  months in the original packaging - Protect from humidity

**Adhesive thickness** from 2 to 15 mm

**Coverage**  $\approx 2,5 - 4$  kg/m<sub>2</sub>

**Pot life a +23 °C:** Grey  $\approx 6$  hrs

**Open time at +23 °C (BIII tile):** Grey  $\geq 45$  min. EN 1346

**Foot traffic/grouting of joints at +23 °C:** Grey  $\approx 20$  hrs

**Foot traffic/grouting of joints at +5 °C:** Grey  $\approx 50$  hrs

**Grouting in walls:** +23 °C  $\approx 15$  hrs

**Ready for use at +23 °C / +5 °C**

- light foot traffic  $\approx 2 / 3$  days
- heavy traffic  $\approx 3 / 7$  days
- pool (+23°C)  $\approx 14$  days

## PRE-TREATMENT OF SPECIAL SUBSTRATES

*Gypsum-based plasters/renders, anhydrite screeds and cellular concrete, for internal use:  
 Primer A Eco by Kerakoll.  
 Please see the technical data sheet on how to use the Primers properly.*

## MATERIALS AND SPECIAL BASES MARBLES AND NATURAL STONES

Materials subject to deformation or stains due to water absorption require a quick-setting or reactive adhesive.

Marble and natural stones generally have characteristics that may vary even though referring to materials of the same chemical-physical nature, therefore it is essential to consult Technoriunite to request safer information or to perform a test on a sample of the material. Natural stone slabs that have layers of reinforcement, in the form of resin coating, polymeric material nets, mats, etc. o treatments (for example anti-rising, etc.)

applied on the laying face, in the absence of the manufacturer's prescriptions, they require a test prior compatibility with the adhesive.

Check for any variously consistent traces of rock dust made up of sawing residues and, if necessary, remove.

## SPECIAL APPLICATIONS

**Facades** (UNI 11493 - point 7. 13.7)

The substrate must guarantee a cohesive tensile strength  $\geq 1.0 \text{ N} / \text{mm}^2$ . For coatings with side  $> 30 \text{ cm}$  the need to prescribe suitable must be assessed by the designer mechanical safety fixings. Always apply the adhesive also directly on back of the material.

Insulating and soundproofing panels applied using spot adhesion as recommended by the manufacturers.

Plasterboard and fibro-cement slabs must be firmly anchored to specific metal frames.

## DO NOT USE

On timber, metal, plastic or resilient materials, deformable substrates or subject to vibrations. On screeds, plasters/renders, concrete not yet cured and affected by important drying shrinkage. On organic-based waterproofing products (such as RM according to EN 14891). On smooth prefabricated concrete.

## PERFORMANCE

Tensile adhesion (concrete/porcelain tiles) after 28 days  $\geq 1 \text{ N} / \text{mm}^2$  EN 1348

Durability test:

- Adhesion after heat ageing  $\geq 1 \text{ N} / \text{mm}^2$  EN 1348

- adhesion after water immersion  $\geq 1 \text{ N} / \text{mm}^2$  EN 1348

- adhesion after freeze-thaw cycles  $\geq 1 \text{ N} / \text{mm}^2$  EN 1348

Vertical  $\leq 0,5 \text{ mm}$  EN 1308

Transversal deformation  $\geq 2,5 \text{ mm}$  EN 12002

Working temperature from  $-30 \text{ }^\circ\text{C}$  to  $+80 \text{ }^\circ\text{C}$

## GENERAL NOTICES

- Product for professional use
- Abide by any standards and national regulations
- Do not use the adhesive to correct substrate irregularities greater than 15 mm
- protect from direct rainfall for at least 24 hrs
- the temperature, ventilation and absorption of the substrate and covering materials, may vary the adhesive workability and setting times
- use the right size of toothed spreader for the format of the tile or slab
- guarantee a full-bed in all external laying operations - if necessary, ask for the safety data sheet - for any other issues, contact....

*The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Technoriunite in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.*

